

Your Name

Student ID #

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1. Compute $\int x \ln x \, dx$.

2. Compute $\int \tan t \, dt$ directly. (Hint: $\tan t = \frac{\sin t}{\cos t}$.)

3. (Partial Fraction Decomposition) Find the constants A and B where

$$\frac{s+3}{s(s-2)} = \frac{A}{s} + \frac{B}{s-2}.$$